AMENDMENTS TO THE CLAIMS

Please amend the claims as detailed below

- 1. (Currently amended) An apparatus comprising:
 - a heat source with at least one integrated circuit;
 - a heat exchanger; and
- a thermal management device having a case including a cavity and a microporous medium disposed within and filling the entire-cavity, the thermal management device to allow for a fluid to flow through said cavity and microporous medium to thermally couple the heat source to the heat exchanger.
- 2. (Original) The apparatus of claim 1, wherein the fluid is a selected one of air, water, and perfluorinated liquid.
- 3. (Original) The apparatus of claim 1, wherein the case comprises at least a selected one of copper and aluminum.
- 4. (Previously presented) The apparatus of claim 1, wherein the microporous medium includes a microporous metal foam.
- 5. (Previously presented) The apparatus of claim 4, wherein the microporous metal foam includes a metal selected from the group consisting of copper, aluminum, and carbon.
- 6. (Previously presented) The apparatus of claim 1, wherein the microporous medium includes a plurality of pore channels with a pore diameter that is substantially at or between $50 \ \mu m 1 \ mm$.
- 7. (Previously presented) The apparatus of claim 6, wherein the microporous medium includes a plurality of areas with different pore diameters.
- 8. (Previously presented) The apparatus of claim 1, wherein the microporous medium includes a porosity that is substantially at or above 80%.
- 9. (Previously presented) The apparatus of claim 1, wherein the case includes: an inlet coupled to a pump; an outlet coupled to the heat exchanger; and

the pump to facilitate fluid flow through the microporous medium toward the heat exchanger.

- 10. (Original) The apparatus of claim 9, wherein the heat source further comprises a die including the at least one integrated circuit; and a substrate coupled to the die to form a package.
- 11. (Previously presented) The apparatus of claim 10, wherein the case substantially encloses the microporous medium.
- 12. (Previously presented) The apparatus of claim 11, wherein the microporous medium is coupled to at least one interior wall of the case with a thermal interface material.
- 13. (Original) The apparatus of claim 11, wherein the case is coupled to the die with a thermal interface material.
- 14. (Original) The apparatus of claim 11, further comprising a heat spreader coupled to the substrate over the die, and the case is coupled to the heat spreader with a thermal interface material.
- 15. (Previously presented) The apparatus of claim 10, wherein the microporous medium is coupled to the die.
- 16. (Original) The apparatus of claim 15, further comprising a substantially watertight seal between the case and the die.
- 17. (Original) The apparatus of claim 16, wherein the substantially watertight seal includes an epoxy sealant.
- 18. (Previously presented) The apparatus of claim 15, wherein the microporous medium is coupled to the die with a thermal interface material.
- 19. (Previously presented) The apparatus of claim 15, wherein the die has a length, a width, and a height, and the microporous medium has at least substantially the same length and width.
- 20. (Currently amended) A method comprising: operating an integrated circuit, leading to heat being sourced from the integrated circuit; and

flowing a fluid through a microporous medium housed in and filling an entire cavity of a case to transfer thermal energy away from the integrated circuit heat source.

21. (Original) The method of claim 20, wherein flowing of a fluid comprises flowing a selected one of air, water, and perfluorinated liquid.

- 22. (Previously presented) The method of claim 20, wherein the microporous medium includes a microporous metal foam.
- 23. (Previously presented) The method of claim 20, wherein the microporous medium includes a plurality of pore channels with a pore diameter that is substantially at or between 50 µm 1 mm.
- 24. (Original) The method of claim 20, wherein said flowing of a fluid comprises operating a pump coupled to an inlet in the case to move the fluid through the case, and the method further comprises operating a heat exchanger coupled to an outlet in the case to transfer thermal energy.
- 25. (Original) The method of claim 20, wherein said flowing of a fluid is induced at least in part by natural buoyancy resulting from heated portions of the fluid.
- 26. (Currently amended) A system comprising: an electronic assembly including:
 - a heat source with at least one integrated circuit;
 - a heat exchanger; and
 - a thermal management device having a case including a cavity and a microporous medium disposed within and filling the entire-cavity, the thermal management device to allow for a fluid to flow through said cavity and microporous medium to thermally couple the heat source to the heat exchanger;

a dynamic random access memory coupled to the at least one integrated circuit; and

an input/output interface coupled to the at least one integrated circuit.

- 27. (Previously presented) The system of claim 26, wherein the microporous medium includes a microporous metal foam.
- 28. (Previously presented) The system of claim 26, wherein the microporous medium includes a plurality of pore channels with a pore diameter that is substantially at or between 50 μ m 1 mm.
- 29. (Original) The system of claim 26, wherein the integrated circuit is a microprocessor.
- 30. (Previously presented) The system of claim 29, wherein the system is selected from a group consisting of a set-top box, an entertainment unit, and a digital versatile disk player.

31. (Original) The system of claim 26, wherein the input/output interface comprises networking interface.	а
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